

## **CMOM Program Implementation 2013 Annual Report**

Pursuant to Administrative Order Docket No. 08-037 (AO), the Springfield Water and Sewer Commission (Commission) submits the following CMOM Program Implementation Annual Report for 2013. This report is a summary of the actions taken by the Commission during the 2013 calendar year to advance the CMOM Program.

### ***A. Sanitary Sewer Overflow Summary***

Based on information provided in the CMOM Self Assessment Checklist and recent reporting trends, the Commission has seen a steady decrease in the number of Sanitary Sewer Overflows. The Commission reports all SSO's that occur within the wastewater collections system in this report with the exception of Combined Sewer Overflows from Permitted CSOs. SSO's are defined as a sewer backup which results in an overflow as a result of insufficient capacity, obstruction of flow, or structural failure of the pipe/conduit. In 2006 the Commission recorded 141 SSO's. There has been a decrease in each of the past five years with 39 SSO's being reported in 2012. This represents a 72% decrease in SSOs since the initiation of this program. Appendix A of this report presents all the SSO's for CY 2013. Pursuant to the requirements of the AO, the following information is presented in tabular form:

- Date and time of SSO
- Date and time SSO was resolved
- Location of SSO
- Source of Notification
- Cause of SSO
- Measures taken to resolve SSO
- Estimated volume of overflow
- Discharge location

### ***B. Corrective Action Plan (CAP) Implementation***

In 2013 the Commission continued to advance all of the major components of the CMOM Program. Appendix B summarizes work performed by Commission staff in 2013. Below is a summary of additional activities that were completed by the Commission in 2013:

#### **Pipe Installation:**

In 2013 the Commission installed approximately 12492 feet of pipe as part of capital projects and performed rehabilitation of 1600 feet of large diameter pipe. An additional 59 manholes and 23 catchbasins were also installed. These improvements were designed and constructed to provide a better level of sewer and drain service to Commission customers. The Commission also rehabilitated four manholes as part of this work.

#### **Pipe and Manhole Cleaning:**

Each year the Commission implements a cleaning program using Commission staff, contract operations staff, and hired contractors. The tables below summarize the results of the 2013 program.

| <b>CONTRACT CLEANING</b> |                         |                |
|--------------------------|-------------------------|----------------|
| <b>Size of Pipe</b>      | <b>Type of Cleaning</b> | <b>Footage</b> |
| 6"-12" Pipe              | Light Cleaning          | 149,984        |
| 13"-20" Pipe             | Light Cleaning          | 11,499         |
| 21"-29" Pipe             | Light Cleaning          | 665            |
| 30"-39" Pipe             | Light Cleaning          | 282            |
| 40"-49" Pipe             | Light Cleaning          | 0              |
| >50" Pipe                | Light Cleaning          | 0              |
| 6"-12" Pipe              | Medium Cleaning         | 139,449        |
| 13"-20" Pipe             | Medium Cleaning         | 16,340         |
| 21"-29" Pipe             | Medium Cleaning         | 2,763          |
| 30"-39" Pipe             | Medium Cleaning         | 1,252          |
| 40"-49" Pipe             | Medium Cleaning         | 0              |
| >50" Pipe                | Medium Cleaning         | 0              |
| 6"-12" Pipe              | Heavy Cleaning          | 47,238         |
| 13"-20" Pipe             | Heavy Cleaning          | 14,710         |
| 21"-29" Pipe             | Heavy Cleaning          | 188            |
| 30"-39" Pipe             | Heavy Cleaning          | 0              |
| 40"-49" Pipe             | Heavy Cleaning          | 0              |

|                          |                |                |
|--------------------------|----------------|----------------|
| >50" Pipe                | Heavy Cleaning | 0              |
| Pipes more than 1/4 Full | Heavy Cleaning | 11,260         |
| <b>Total Footage</b>     |                | <b>395,630</b> |

| <b>COMMISSION CLEANING</b> |                         |                |
|----------------------------|-------------------------|----------------|
| <b>Size of Pipe</b>        | <b>Type of Cleaning</b> | <b>Footage</b> |
| Various                    | Various                 | 351,042        |

| <b>Grit Removal</b>    |                     |
|------------------------|---------------------|
| <b>Cleaning Entity</b> | <b>Tons Removed</b> |
| Commission Contract    | 183                 |
| Commission             | 1,500               |
| United Water           | 120                 |
| <b>Total</b>           | <b>1,803</b>        |

Appendix C summarizes additional CMOM tasks performed by United Water.

#### **Clinton Street Grit Removal:**

The Commission has an in-line grit removal system on the Connecticut River Interceptor (CRI) maintained by the contract operator United Water. In 2013 United Water removed 99.39 tons of grit from the Clinton Street Grit Pit. The removal of this material increased the capacity and level of service in the CRI by capturing the material before it was deposited in the pipe.

#### **PACP/MACP Pipe and Manhole Inspection:**

The Commission staff and consulting engineers were responsible for the inspection of over 744,354 feet of sewer and drain pipe in 2013. Additionally, over 2,078 manholes were inspected. All inspections were completed using the nationally standardized system of PACP and MACP. Commission staff have been trained and licensed in the program. Collection of pertinent information is being standardized as the Commission is advancing the CMOM Program.

#### **Collection System Mapping:**

In 2013 the Commission advanced its efforts to refine the collection system mapping. Typical annual activities include updating the sewer book, completing sewer service cards for new/replacement services, and improving the sewer GIS. In 2013 2,080 points in the collection

system were GPS'd. As a result the spatial attributes of more 2,000 manholes and 2,800 pipe segments were updated.

#### **Records/Digital Archive:**

In 2013 the Commission and its consulting engineers scanned 36,000 sewer service cards and geo-spatially linked them to the GIS system. The Commission is expanding this program in 2014, with the future goal of digitally archiving and geo-spatially linking all record drawings and documents associated with individual assets.

#### **Work Order Management/ Computerized Maintenance Management System**

In 2013 the Commission began implementation of a new Asset Management system. This system will be the basis for tracking and trending of SSO's and other operational parameters. The system will be implemented of the next two years. At the beginning of each year the Commission's staff reviews the previous year's data and plan/schedule sewer assessment and rehabilitation based on any SSO and O&M trends.

#### ***C. Collection System Mapping***

##### *Sewer Book*

The Commission maintains a detailed sewer book (wastewater collection system atlas) that covers the entire collection system. This document is updated as changes are made to the collection system or as record discrepancies are discovered.

##### *ArcGIS Geodatabase*

The Commission maintains an ArcGIS geodatabase which also covers the entire collection system. In 2013 the Commission expanded the detail and accuracy of its GIS mapping program. See above for details of work completed in 2013.

#### ***D. Wastewater Collection System Budget***

Please see Appendix D for the Commission's FY 2012 and FY 2013 Wastewater Collection System Budget and FY 2012 and FY 2013 Capital Improvements Budget

Please see previous reports for details on the Commission's staffing plan for the collection system and for job descriptions. Staffing and job descriptions remain unchanged from previous reports.

***E. Programs for the Reduction of Extraneous Flows and FOG (Fats, Oils, and Grease)***

In 2013 the Commission began construction of the Washburn Street CSO Project that will remove stormwater from the Commission's combined sewer system.

The Commission's Rules and Regulations prohibit the disposal of FOG to the collections system in amounts greater than 100 mg/L or in amounts that result in restricting flow. As of July 1, 2009, the Commission updated the Rules and Regulations to include descriptions and requirements for grease control devices in existing and new facilities, inspections, maintenance, and record keeping requirements by owners, the right to inspect by Commission personnel, and enforcement actions for non-compliance by owners. An aggressive outreach and education program was initiated in 2012 and continued in 2013.

***F. Easement Maintenance Programs***

The Commission has an existing book identifying cross country sewers that is used as a reference for inspection and maintenance. Advancement of the sewer assessment program and GIS mapping programs intend to further identify and address maintenance needs for cross country and easement areas. The information gathered from these activities will be evaluated and integrated with short and long term planning for maintenance of easements. A line item for maintaining easements is now in the operations budget. The Commission has also continued to install visible sewer markers on cross country sewers.

***G. CY 2013 CMOM Program***

The Commission has continued collection system evaluations, hydraulic capacity analyses, and development of a long term capital improvement plan for the collection system as part of various ongoing programs. In 2014 the Commission plans to undertake the following measures to advance the CMOM Program:

- Continuation of System Assessment Program

- Internal inspections of collection system assets (e.g., MACP inspections and PACP inspections)
- Improvements to geodatabase detail and accuracy via inspections, record plans, and GPS
- Calibrate and improve the wastewater collection system hydraulic model

## Appendix A



## SSO Report

Between Jan 1, 2013 12:00 AM and Dec 31, 2013 11:59 PM

INFOR

| WORK ORDER | DATE/TIME REPORTED       | WORK COMPLETED           | LOCATION                         | NOTIFICATION SOURCE | CAUSE OF SSO                     | MEASURES TAKEN                            | EST GALLONS                   | DISCHARGE LOCATION | RECEIVING WATER     | REPORTED PROBLEM | FAILURE              |
|------------|--------------------------|--------------------------|----------------------------------|---------------------|----------------------------------|---|-------------------------------|--------------------|---------------------|------------------|----------------------|
| 664969     | Jan 20, 2013 12:00:00 AM | Jan 20, 2013 12:00:00 AM | 136 VALLEY RD-SPRINGFIELD        | Property Owner      | Root Blockage                    | Jetted                                    | d. < 10,000 gal               | Basement           |                     | Sewer Backup     | Standing Main        |
| 665062     | Jan 23, 2013 7:58:00 AM  | Jan 23, 2013 8:40:00 AM  | KENDALL ST - SPRINGFIELD         | JACKSON, EDWARD     | Grease Blockage                  | Jetted                                    | d. < 10,000 gal               | Street             | CONNECTICUT RIVER   | Sewer Backup     | Standing Main        |
| 665229     | Jan 24, 2013 9:05:00 AM  | Jan 24, 2013 12:00:00 AM | 717 NORTH BRANCH PW-SPRINGFIELD  | Property Owner      | Grease Blockage                  | Jetted                                    | d. < 10,000 gal               | Basement           |                     | Sewer Backup     | Standing Main        |
| 666532     | Feb 2, 2013 10:45:00 AM  | Feb 2, 2013 12:00:00 AM  | 1140 ROOSEVELT AV-SPRINGFIELD    | Property Owner      | Grease Blockage                  | Jetted                                    | d. < 10,000 gal               | Basement           |                     | Sewer Backup     | Standing Main        |
| 667297     | Feb 8, 2013 3:15:00 PM   | Feb 8, 2013 5:40:00 PM   | 61 BELLWOOD ROAD-SPRINGFIELD     | Property Owner      | Root Blockage                    | Jetted                                    | d. < 10,000 gal               | Basement           |                     | Sewer Backup     | Blocked Service Line |
| 667301     | Feb 10, 2013 4:32:00 PM  | Feb 10, 2013 12:00:00 AM | 663 BRADLEY ROAD-SPRINGFIELD     | Property Owner      | Root Blockage                    | Jetted                                    | d. < 10,000 gal               | Basement           |                     | Sewer Backup     | Standing Main        |
| 668272     | Feb 21, 2013 11:52:00 AM | Feb 21, 2013 1:35:00 PM  | 245 NORFOLK ST-SPRINGFIELD       | JACKSON, EDWARD     | Paper/Rags Clog                  | Jetted                                    | d. < 10,000 gal               | Basement           |                     | Sewer Backup     | Standing Main        |
| 669258     | Mar 3, 2013 3:25:00 PM   | Mar 3, 2013 12:00:00 AM  | 25 HASTINGS ST-SPRINGFIELD       | Property Owner      | Grease Blockage                  | Jetted                                    | d. < 10,000 gal               | Basement           |                     | Sewer Backup     | Standing Main        |
| 669260     | Mar 3, 2013 4:32:00 PM   | Mar 3, 2013 12:00:00 AM  | 96 LUMAE ST-SPRINGFIELD          | Property Owner      | Root Blockage                    | Jetted                                    | d. < 10,000 gal               | Basement           |                     | Sewer Backup     | Standing Main        |
| 688074     | Mar 15, 2013 12:00:00 AM | Mar 15, 2013 12:00:00 AM | 50 BRICKETT ST-SPRINGFIELD       | OUELLETTE, KEITH    |                                  | Advised Customer                          | d. < 10,000 gal               | Other              |                     | Sewer Backup     |                      |
| 688426     | Mar 15, 2013 11:20:00 AM | Mar 15, 2013 12:00:00 AM | 69 MASSRECO ST-SPRINGFIELD       | Property Owner      | Grease Blockage                  | Jetted                                    | d. < 10,000 gal               | Basement           |                     | Sewer Backup     | Standing Main        |
| 690432     | Mar 31, 2013 11:19:00 AM | Mar 31, 2013 1:30:00 PM  | 120 ELMORE AV-SPRINGFIELD        | Property Owner      | Grease Blockage                  | Jetted                                    | d. < 10,000 gal               | Basement           |                     | Sewer Backup     | Standing Main        |
| 695908     | Apr 6, 2013 2:00:00 PM   | Apr 6, 2013 5:30:00 PM   | BURGHARDT ST - SPRINGFIELD       | Property Owner      | Grease Blockage                  | Jetted                                    | c. > 10,000 and < 100,000 gal | Ground Surface     | WATERSHOP POND      | Sewer Backup     | Standing Main        |
| 692748     | Apr 13, 2013 8:14:00 AM  | Apr 13, 2013 12:20:00 PM | 60 TAMARACK DR-SPRINGFIELD       | Property Owner      | Grease Blockage                  | Jetted                                    | d. < 10,000 gal               | Basement           |                     | Sewer Backup     | Standing Main        |
| 692745     | Apr 13, 2013 8:59:00 AM  | Apr 13, 2013 7:30:00 PM  | 84 BRIARCLIFF STREET-SPRINGFIELD | Property Owner      | Root Blockage                    | Jetted                                    | d. < 10,000 gal               | Basement           | S BRANCH MILL RIVER | Sewer Backup     | Standing Main        |
| 693296     | Apr 18, 2013 8:00:00 AM  | Apr 18, 2013 2:30:00 PM  | TIFFANY ST - SPRINGFIELD         | Passerby            |                                  | Jetted                                    | d. < 10,000 gal               | Street             | PORTER LAKE         | Sewer Backup     | Standing Main        |
| 693865     | Apr 23, 2013 9:35:00 AM  | Apr 23, 2013 11:15:00 AM | SACHEM ST - SPRINGFIELD          | JACKSON, EDWARD     | Grease Blockage                  | Jetted                                    | d. < 10,000 gal               | Ground Surface     |                     | Sewer Backup     | Standing Main        |
| 693955     | Apr 25, 2013 11:45:00 AM | Apr 25, 2013 1:45:00 PM  | 75 MERIDA ST-SPRINGFIELD         | Property Owner      | Grease Blockage                  | Jetted                                    | d. < 10,000 gal               | Basement           |                     | Sewer Backup     | Standing Main        |
| 694529     | Apr 30, 2013 10:30:00 AM | Apr 30, 2013 12:00:00 PM | APPLETON ST - SPRINGFIELD        | Property Owner      |                                  | Cleaned MH                                | d. < 10,000 gal               | Street             | PORTER LAKE         | Sewer Backup     |                      |
| 696589     | May 10, 2013 12:50:00 PM | May 10, 2013 7:05:00 PM  | 130 SENATOR ST-SPRINGFIELD       | Property Owner      | Grease Blockage                  | Jetted                                    | d. < 10,000 gal               | Street             | S BRANCH MILL RIVER | Sewer Backup     | Standing Main        |
| 698090     | May 24, 2013 2:25:00 PM  | May 24, 2013 12:00:00 AM | 42 SPRUCE ST-SPRINGFIELD         | Property Owner      | Collapsed Sewer                  | Jetted                                    | d. < 10,000 gal               | Basement           |                     | Sewer Backup     | Standing Main        |
| 700431     | Jun 3, 2013 8:37:00 PM   | Jun 3, 2013 12:00:00 AM  | 15 NELSON AV-SPRINGFIELD         | Property Owner      |                                  | Repaired Sewer Connection                 | d. < 10,000 gal               | Basement           |                     | Sewer Backup     |                      |
| 704660     | Jun 12, 2013 8:15:00 AM  | Jun 12, 2013 2:30:00 PM  | FEDERAL ST - SPRINGFIELD         | Property Owner      | Collapsed Sewer                  | Jetted                                    | d. < 10,000 gal               | Basement           |                     | Sewer Backup     | Standing Main        |
| 704182     | Jun 14, 2013 9:57:00 AM  | Jun 14, 2013 11:30:00 AM | SYPHON, BURT RD                  | JACKSON, EDWARD     |                                  | Jetted                                    | d. < 10,000 gal               |                    | SCHNEELOCK BROOK    | Sewer Backup     | Standing Main        |
| 707383     | Jun 22, 2013 12:15:00 PM | Jun 22, 2013 12:00:00 AM | 33 INGLEWOOD AV-SPRINGFIELD      | Property Owner      | Root Blockage                    | Jetted                                    | d. < 10,000 gal               | Basement           |                     | Sewer Backup     | Standing Main        |
| 707729     | Jul 1, 2013 12:55:00 PM  | Jul 1, 2013 1:55:00 PM   | 123 WILLIAM ST-SPRINGFIELD       | Property Owner      | Insufficient Capacity-Rain Event | Advised Customer                          | d. < 10,000 gal               | Basement           |                     | Sewer Backup     | Blocked Service Line |
| 726181     | Jul 8, 2013 10:53:00 PM  | Jul 8, 2013 11:30:00 PM  | 89 WAYNE ST-SPRINGFIELD          | Property Owner      | Insufficient Capacity-Rain Event | Advised Customer, recommended check valve | d. < 10,000 gal               | Basement           |                     | Sewer Backup     | Standing Main        |
| 726172     | Jul 9, 2013 10:15:00 AM  | Jul 9, 2013 10:00:00 AM  | 28 PERKINS ST-SPRINGFIELD        | Property Owner      | Insufficient Capacity-Rain Event | Advised Customer, recommended check valve | d. < 10,000 gal               | Basement           |                     | Sewer Backup     | Standing Main        |
| 726161     | Jul 9, 2013 1:00:00 PM   | Jul 9, 2013 2:15:00 PM   | 59 WAYNE ST-SPRINGFIELD          | Property Owner      | Insufficient Capacity-Rain Event | Advised Customer, recommended check valve | d. < 10,000 gal               | Basement           |                     | Sewer Backup     | Standing Main        |
| 726990     | Jul 9, 2013 2:08:00 PM   | Jul 9, 2013 3:20:00 PM   | 53-55 GORDON ST-SPRINGFIELD      | Property Owner      | Insufficient Capacity-Rain Event | Advised Customer, recommended check valve | d. < 10,000 gal               | Basement           |                     | Sewer Backup     | Surcharged Main      |
| 727964     | Jul 23, 2013 5:19:00 PM  | Jul 23, 2013 6:45:00 PM  | 98 OAK ST -INDIAN ORCHARD        | Property Owner      | Insufficient Capacity-Rain Event | Advised Customer, recommended check valve | d. < 10,000 gal               | Basement           |                     | Sewer Backup     | Surcharged Main      |
| 731723     | Aug 9, 2013 1:48:00 PM   | Aug 9, 2013 4:30:00 PM   | 18-20 MONTFORD ST-SPRINGFIELD    | Property Owner      | Root Blockage                    | Jetted                                    | d. < 10,000 gal               | Basement           |                     | Sewer Backup     | Standing Main        |
| 752402     | Sep 19, 2013 6:50:00 PM  | Sep 19, 2013 11:30:00 AM | 50 FINCH RD-SPRINGFIELD          | Property Owner      | Grease Blockage                  | Jetted                                    | d. < 10,000 gal               | Basement           |                     | Sewer Backup     | Obstruction in main  |
| 754367     | Oct 5, 2013 1:35:00 PM   | Oct 5, 2013 5:15:00 PM   | 112 MAEBETH ST-SPRINGFIELD       | Property Owner      |                                  | Jetted                                    | d. < 10,000 gal               | Basement           |                     | Sewer Backup     | Standing Main        |
| 758126     | Oct 27, 2013 4:31:00 PM  | Oct 27, 2013 8:30:00 PM  | 100 GRALIA DR-SPRINGFIELD        | Property Owner      | Root Blockage                    | Jetted                                    |                               | Basement           |                     | Sewer Backup     | Standing Main        |





## SSO Report

Between Jan 1, 2013 12:00 AM and Dec 31, 2013 11:59 PM

INFOR

| WORK ORDER | DATE/TIME REPORTED       | WORK COMPLETED          | LOCATION                     | NOTIFICATION SOURCE | CAUSE OF SSO    | MEASURES TAKEN | EST GALLONS     | DISCHARGE LOCATION | RECEIVING WATER | REPORTED PROBLEM | FAILURE              |
|------------|--------------------------|-------------------------|------------------------------|---------------------|-----------------|----------------|-----------------|--------------------|-----------------|------------------|----------------------|
| 760259     | Nov 14, 2013 10:05:00 AM | Nov 14, 2013 1:30:00 PM | 46 QUEEN ST-SPRINGFIELD      | Property Owner      | Grease Blockage | Jetted         | d. < 10,000 gal | Basement           |                 | Sewer Backup     | Blocked Service Line |
| 762427     | Nov 28, 2013 4:45:00 PM  | Nov 28, 2013 8:45:00 PM | 118 SENATOR ST-SPRINGFIELD   | Property Owner      | Grease Blockage | Jetted         | d. < 10,000 gal | Ground Surface     |                 | Sewer Backup     | Standing Main        |
| 763197     | Dec 4, 2013 6:45:00 PM   | Dec 4, 2013 9:15:00 PM  | 16 MEADOWLARK LA-SPRINGFIELD | Property Owner      | Paper/Rags Clog | Jetted         | d. < 10,000 gal | Basement           |                 | Sewer Backup     | Standing Main        |
| 764913     | Dec 19, 2013 6:50:00 PM  | Dec 19, 2013 8:39:00 PM | 289 PHELAND AV-SPRINGFIELD   | Property Owner      | Root Blockage   | Jetted         | d. < 10,000 gal | Basement           |                 | Sewer Backup     | Standing Main        |

### 39 Summary

This information is based on work orders with a date reported Between Jan 1, 2013 12:00 AM and Dec 31, 2013 11:59 PM

Date/Time Reported & Work Completed are the dates and times entered on the work order.

Location is the street or address point selected as equipment on the work order.

Notification Source is the "Reported By" field on the work order.

Cause of SSO is the "Cause Code" field on the work order.

Measures Taken is the "Action Code" field on the work order.

EST Gallons, Discharge Location, and Receiving Water are the "Estimated Overflow Volume", "SSO Discharge Location", and "SSO Receiving Water" custom fields on the work order.

Reported Problem is the "Problem Code" field on the work order.

Failure is the "Failure Code" field on the work order.

## Appendix B



# Sewer Collection Work Summary

INFOR

Date Range: Between Jan 1, 2013 and Dec 31, 2013

|  |         |
|--|---------|
| Sewer Back Up Work Orders:                   | 835     |
| Advised Customer:                            | 310     |
| Petitions:                                   | 556     |
| Investigations, Odors, MH Cover Work Orders: | 341     |
| Work Orders with Rodding:                    | 385     |
| Work Orders with Standing Main:              | 59      |
| Haz-Mat Calls:                               | 1       |
| SSOs:  | 39      |
| Syphon Inspection WOs:                       | 255     |
| Total Blocked Syphons:                       | 0       |
| Sanitary Repairs                             | 166     |
| Sanitary Repair Pipe Installed(ft):          | 618     |
| House Connection Repairs:                    | 129     |
| House Connection Repair Pipe Installed(ft):  | 2801    |
| Cave-Ins:                                    | 101     |
| Patching/Restoration/Loam & Seed:            | 305     |
| Sewer Jetted(ft):                            | 376,612 |
| Manholes Cleaned:                            | 2,332   |

This information is based on work orders completed Between Jan 1, 2013 and Dec 31, 2013

Sewer Back Ups require: Standard work order to be "SEW002."  
 Advised Customer requires: Action code to be "SWR3009."  
 Petitions require: Petition no. to not be empty  
 Rodding requires: Action code to be "SWR3011" or "SWR3001"  
 Investigations, Odors, MH Covers require: Standard work order to be "SEW004."  
 Standing Mains require: Failure code to be "SWR1000."  
 Haz Mat Calls require: Standard work order to be "SEW009."  
 SSOs require: The SSO CF to be 'Y' and the date reported to be Between Jan 1, 2013 and Dec 31, 2013  
 Syphon Inspections require: Non cancelled PM syphon inspection work orders.  
 Blocked Syphons: Total number of reported blocked syphons from daily inspections.  
 Sanitary Repairs require: Standard work order to be "SEW011" or "SEW012."  
 Sanitary Repair Pipe Installed(FT): Total reported in the Pipe Installed Custom Fields.  
 House Connections require: Standard work order to be "SEW010"  
 House Connection Repair Pipe Installed(FT): Total reported in the Pipe Installed Custom Fields.  
 Cave-Ins require: Problem code to be "SWR0005" or standard work order to be "SEW006."  
 Patching/Restoration/Loam & Seed requires: Standard work order to be "SEW007" or "SEW008."  
 Sewer Jettings require: Custom Field jetted ft. to not be blank.  
 Manholes Cleaned requires: Custom field MH cleaned to not be blank.

## Appendix C



# United Water's Wastewater Collection System Operation and Maintenance Program and Record Keeping

| Location  | Task   | Frequency               | Responsibility                                       | Hard Copy Records   | Hard Copy Record Location   | Electronic Data  | Electronic Data Location   |
|---|--|-------------------------|--|---|---|--|--|
| <b>Clinton Street Grit Pit</b>  |  |                         |  |   |   |  |  |
| Clinton Street Grit Pit   | Grit level monitoring                            | Weekly                  | United Water Maintenance Dept. Collections Group     | Weekly Grit Pit Monitoring Log Sheet  | Grit Pit Notebook in Collections Supervisor's Office                              | Master Monitoring and Cleaning Log, PM Work Order COL-SPFLD-CLIN-GPIT                      | CMMS MP2   |
| Clinton Street Grit Pit   | Grit Pit Cleaning                                | As Required             | United Water Maintenance Dept Collections Supervisor | Monthly Work Order & Contractor's Work Ticket   | Vendor File in Administration Office  | Work Order COL-SPFLD-CLIN-GPIT, Master Monitoring and Cleaning Log                         | CMMS MP2   |
| Clinton Street Grit Pit   | Monitoring and Cleaning Activity Summary         | Monthly                 | United Water Maintenance Dept                        | Clinton Street Grit Pit Monthly Summary Report  | Monthly Client Report   | Weekly Grit Level Monitoring and Grit Quantities Removed                                   | UW Server - S:/Collection System/Clinton Street Grit Pit/Clinton Street Grit Pit.XLSX, Opps Win Database   |
| <b>Connecticut River Interceptor Sewer Floatables Accumulation Monitoring</b> |  |                         |  |   |   |  |  |
| CT River Interceptor MH 45 & 59   | Floatables Monitoring                            | Monthly                 | United Water Maintenance Dept Collections Group      | Connecticut River Interceptor Sewer Grit Readings   | Interceptor Grit Notebook in Collections Supervisor's Office                      | Work Order - COL-SINTRCPT-GRT-MEA, Connecticut River Interceptor Sewer Floatables Readings | CMMS MP2 PM Work Order History   |
| <b>Connecticut River Interceptor Sewer CCTV/Sonar Inspections</b>             |  |                         |  |   |   |  |  |
| CT River Interceptor  | CCTV Inspection and Report                       | 3-5 yrs as needed       | United Water Project Manager                         | Multi Volume Inspection Report and Summary Table  | UW Central File Room  | Connecticut River Cleaning CCTV  | Flash Drive in Central File Room and UW Project Manager's Office S:/Collection System/Springfield Interceptor System/CCTV-Sonar Inspection Summary Reports   |
| <b>Connecticut River Interceptor Sewer Cleaning</b>                           |  |                         |  |   |   |  |  |
| CT River Interceptor  | Heavy Cleaning                                   | As needed               | United Water Designated Project Engineer             | Cleaning Activity Reports   | UW Central Central File Room  | Connecticut River Interceptor Sewer Cleaning Summary Report                                | UW Server - S:/Collection System/Springfield Interceptor System/Cleaning Summary Reports/  |
| CT River Interceptor  | Focus Areas Spot Cleaning                        | Yearly                  | United Water Maintenance Dept Collections Supervisor | Cleaning Activity Log   | Interceptor Cleaning Notebook in Collections Supervisor's Office                  | Work Order - COL-SINTRCPT-GRT-CLEAN Sewer Grit Quantities Removed                          | CMMS MP2 PM Work Order History, Opps Win Database  |
| <b>CSO Outfall Flood Gate and Sluice Gate Maintenance</b>                     |  |                         |  |   |   |  |  |
| Flood Outfall Sluice, Flood Door and Backwater Flap Gates                     | Inspection, cleaning, exercising and lubrication | Quarterly               | United Water Maintenance Dept Collections Group      | Flood Gate Inspection and PM Activity Log and Flood Station Log Book Entries                        | Flood Gate Inspection and PM Activity Log Sheet and Flood Station Log Book        | Preventative Work Order - COL-SPFLD-FLOOD-GATES  | CMMS- MP2 PM Work Order History  |
| Flood Outfall Sluice, Flood Door and Backwater Flap Gates                     | Operation (Open/Close)                           | As Needed               | United Water Maintenance Dept Collections Group      | Flood Gate Status Board, Work Order, Flood Gate Operation Log and Monthly Flood Gate Summary Report | Collections Sytem Supervisor's Office, CMMS MP2 and Monthly Client Report         | Corrective Work Order  | CMMS-MP2 Corrective Work Order History, UW Server - S:/Collection System/Flood Control Gate Status/Flood Gate Status Log.xls   |
| <b>Wastewater Pump Stations</b>   |  |                         |  |   |   |  |  |
| Sanitary Pump Stations  | Regulatory Mandated Physical Inspections         | 2x's weekly             | United Water Maintenance Dept Collections Group      | Daily Station Check Log Sheet, Pump Station Log Book Entries  | Collections Supervisor's Office, individual Pump Stations                         | Station Check PM Weekly Work Order   | CMMS-MP2 PM Work Order History   |
| Sanitary Pump Stations  | Corrective Maintenance                           | As Performed            | United Water Maintenance Dept Collections Group      | Work Order, Pump Station Log Book Entry   | Collections Supervisor's Office, individual Pump Station Log Books                | Corrective Maaintenance Work Order   | CMMS-MP2 Corrective Work Order History   |
| Sanitary Pump Stations  | Alarm Event Reporting                            | When Alarm Event Occurs | United Water Operations Group Senior Operator        | Springfield Pump Station Incident Report  | Current Month - SWTO Office, Prior Months - Collection System Supervisor's Office | NA   | NA   |
| Sanitary Pump Stations  | Pump Station Monthly Summary Reporting           | Monthly                 | United Water Maintenance Dept .                      | Alarm Log Summary, Collection System Report, Pump Run Time Report, Pump Station Report              | Monthly Client Report   | Pump Station Monthly Alarm Symmary Report and Pump Station Monthly Data Historian Report   | UW Server - S:/Collection System/Pump Station Reports/Pump Stations.xls, UW Server - S:/Collection System/Springfield Pumping Stations/Monthly Reports/Year/Month/Springfield Alarm Summary Report.xls |
| <b>Combined Sewer Overflows</b>   |  |                         |  |   |   |  |  |

## United Water's Wastewater Collection System Operation and Maintenance Program and Record Keeping

| <i>Location</i>   | <i>Task</i>   | <i>Frequency</i>        | <i>Responsibility</i>                       | <i>Hard Copy Records</i>   | <i>Hard Copy Record Location</i>   | <i>Electronic Data</i>                                     | <i>Electronic Data Location</i>   |
|---|---|-------------------------|---|--|--|--|---|
| CSO Weirs/Outfalls  | Regulatory Mandated Physical Inspections            | Twice Weekly            | ADS and Operations Superintendent           | Weekly CSO Inspection Log  | Current Month - SWTO Office, Prior Months - Collection System Supervisor's Office, Monthly Client Report | NA   | NA  |
| CSOs  | DWO Alarm Response                                  | When Alarm Event Occurs | SWTO & Operations Superintendent            | DWO Event Reports to EPA and MADEP, CSO Physical Inspection Report | Central File Room, Regulatory Files/NPDES MA 010331, Collections System Supervisor's Office              | Alarm event, acknowledgement, clearing and comments record | ADS IntelliServe Data Base and Reporting System - Alarm History Log   |
| CSOs  | DWO Event Review                                    | Daily                   | Operations Superintendent & Project Manager |  |  | Prior 24 hour period DWO Event Daily Report                | ADS IntelliServe Data Base and Reporting System - Daily Reports   |
| CSOs  | CSO Activation Review                               | Monthly                 | ADS and Operations Superintendent           | Monthly CSO Activation Report                                      | Monthly Client Report  | Monthly CSO Activation Report                              | ADS IntelliServe Data Base and Reporting System - Activation Report<br>UW Server - S:/Collection System/CSO Monthly Activation Report.xls |
| CSOs  | CSO Activation Summary and Discharge Quantification | Monthly                 | ADS and Operations Superintendent           | Annual CSO and Nine Minimum Controls Report                        | Central File Room, Regulatory Files/NPDES MA 010331  | Monthly and Annual CSO Discharge Reports                   | UW Server - S:/Management/CSO Discharge Quantities/ CSO Overflow Volumes Jan to Dec (year).xls  |
| CSOs  | Major Service on Monitoring Equipment               | Monthly                 | ADS and Operations Superintendent           | Monthly Summary of Major Service Conducted                         | Monthly Client Report  | NA   | NA  |
| <b>System Flow Metering Stations</b>  |   |                         |   |  |  |  |   |
| Ludlow, Agawam, and West Springfield System Connections, SRWTF Channels 1 , 2 , 3 and 4 | Data Download                                       | Monthly                 | I&C Supervisor                              | NA   | NA   | Meter 15 minute flow data                                  | UW Server - S:/SWSC/OCMdata/Year/Month/   |
| Ludlow, Agawam, and West Springfield System Connections, SRWTF Channels 1 , 2 , 3 and 4 | PM/Calibration                                      | 6 months                | I&C Supervisor                              | Vendor Calibration Reports   | I&C Supervisors Office   | CMMS - MP2   | PM Work Order History   |

## Appendix D

### Wastewater Operation Budget

| Account           | 2013                  |                      | 2014                  |                      |
|-------------------|-----------------------|----------------------|-----------------------|----------------------|
|                   | Wastewater Collection | Wastewater Treatment | Wastewater Collection | Wastewater Treatment |
| O&M Expense       | \$6,557,150.00        | \$12,700,256.00      | \$7,495,913.00        | \$13,143,310.00      |
| Debt Service      | \$4,207,429.00        | \$1,624,674.00       | \$4,695,449.00        | \$1,494,152.00       |
| Capital Outlay    | \$1,200,393.00        | \$162,983.00         | \$942,000.00          | \$200,900.00         |
| Reserve Transfers | \$124,889.00          | \$33,423.00          |                       |                      |
| Total             | \$12,089,861.00       | \$14,521,336.00      | \$13,133,362.00       | \$14,838,362.00      |



# FY 2013

## General Ledger Capital Projects 626

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Period 01 - 01  
Fiscal Year 2014

| Account Number          | Description  | Appropriation                | Period Amt             | YTD Expended           | Unencumbered                 |
|-------------------------|--|------------------------------|------------------------|------------------------|------------------------------|
| 626-000-001-0007<br>001 | WW Treatment Improvements<br>Wastewater Treatment      | 869,614.31<br>869,614.31     | 6,675.84<br>6,675.84   | 6,675.84<br>6,675.84   | 862,938.47<br>862,938.47     |
| 626-000-002-0009<br>002 | Pump Station Improvements<br>Wastewater Pump Stations  | 193,813.82<br>193,813.82     | 11,915.80<br>11,915.80 | 11,915.80<br>11,915.80 | 181,898.02<br>181,898.02     |
| 626-000-003-0013        | Ct River CSO Control Phase 1                           | 689,865.88                   | 11,992.96              | 11,992.96              | 677,872.92                   |
| 626-000-003-0014        | Flood Control PS Improvements                          | 150,034.66                   | 0.00                   | 0.00                   | 150,034.66                   |
| 626-000-003-0017        | Ct Riv CSO Control Phase 1 SRF                         | 8,053,883.68                 | 0.00                   | 0.00                   | 8,053,883.68                 |
| 626-000-003-0018        | CSO LTCP & Washburn St Design                          | 1,717,229.66                 | 71,038.09              | 71,038.09              | 1,646,191.57                 |
| 626-000-003-0019        | CSO/Sewer GIS Mapping etc                              | 301,804.29                   | 28,280.95              | 28,280.95              | 273,523.34                   |
| 626-000-003-0021        | Washburn St Separation D & C                           | 641,038.59                   | 9,556.65               | 9,556.65               | 631,481.94                   |
| 626-000-003-0024        | Main Interceptor Design                                | 1,650,000.00                 | 0.00                   | 0.00                   | 1,650,000.00                 |
| 626-000-003-0025        | Washburn St CSO Const SRF                              | 18,005,528.41                | 1,391,812.98           | 1,391,812.98           | 16,613,715.43                |
| 003                     | CSO & Main Interceptors                                | 31,209,385.17                | 1,512,681.63           | 1,512,681.63           | 29,696,703.54                |
| 626-000-004-0003        | Watershed Protection/Acquisit.                         | 370,260.00                   | 90,000.00              | 90,000.00              | 280,260.00                   |
| 626-000-004-0007        | Dam Maint/Various Locations                            | 534,718.76                   | 2,092.50               | 2,092.50               | 532,626.26                   |
| 626-000-004-0019        | Watershed Roads  | 125,000.69                   | 0.00                   | 0.00                   | 125,000.69                   |
| 004                     | Dams, Reservoirs & Watersheds                          | 1,029,979.45                 | 92,092.50              | 92,092.50              | 937,886.95                   |
| 626-000-005-0005        | Lagoon Cleaning  | 173,594.19                   | 0.00                   | 0.00                   | 173,594.19                   |
| 626-000-005-0024        | Coagulant Feed & Mixing System                         | 54,601.93                    | 0.00                   | 0.00                   | 54,601.93                    |
| 626-000-005-0026        | Trmt System Infrastruc Rehab                           | 442,912.10                   | 0.00                   | 0.00                   | 442,912.10                   |
| 626-000-005-0027        | Water Trmt Syst Improvements                           | 275,000.00                   | 0.00                   | 0.00                   | 275,000.00                   |
| 626-000-005-0034        | WPF Emergency Generator                                | 28,989.68                    | 0.00                   | 0.00                   | 28,989.68                    |
| 626-000-005-0036        | WPF Generator Repl & Construct                         | 180,340.10                   | 17,337.02              | 17,337.02              | 163,003.08                   |
| 626-000-005-0041        | Rehab of Ludlow SSF Dist Struc                         | 200,000.00                   | 0.00                   | 0.00                   | 200,000.00                   |
| 005                     | Water Treatment Plant                                  | 1,355,438.00                 | 17,337.02              | 17,337.02              | 1,338,100.98                 |
| 626-000-06A-0008        | Transmission Sys Assess&Rehab                          | 399,080.36                   | 6,544.11               | 6,544.11               | 392,436.25                   |
| 626-000-06A-0014        | Transmission System Rehab                              | 224,159.77                   | 28,605.68              | 28,605.68              | 195,554.09                   |
| 626-000-06A-0016        | NOVA/Chicopee Crossing SRF                             | 1,142,014.84                 | 122,433.26             | 122,433.26             | 1,019,581.58                 |
| 626-000-06A-0019        | Huntington PS Elec. Upgrade                            | 36,295.65                    | 1,091.21               | 1,091.21               | 35,204.44                    |
| 626-000-06A-0025        | So Transm Main Ct River SRF                            | 199,528.78                   | 0.00                   | 0.00                   | 199,528.78                   |
| 626-000-06A-0028        | Huntington Pipe Repair                                 | 103,842.28                   | 0.00                   | 0.00                   | 103,842.28                   |
| 626-000-06A-0030        | 54748" South Trans Main Const                          | 32,000,000.00                | 0.00                   | 0.00                   | 32,000,000.00                |
| 626-000-06A-0031        | South Tran Main Design,Sp Serv                         | 1,200,000.00                 | 110,276.14             | 110,276.14             | 1,089,723.86                 |
| 06A                     | Water Transmission                                     | 35,304,921.68                | 269,050.40             | 269,050.40             | 35,035,871.28                |
| 626-000-070-0006<br>070 | Meter Replacement<br>Water Meters                      | 757,165.88<br>757,165.88     | 81,747.21<br>81,747.21 | 81,747.21<br>81,747.21 | 675,418.67<br>675,418.67     |
| 626-000-080-0012        | Provin Mtn Tank II SRF                                 | 659,504.56                   | 0.00                   | 0.00                   | 659,504.56                   |
| 626-000-080-0013<br>080 | Provin Wtr Storage Sys Rehab<br>CIP Provin Mtn,        | 300,000.00<br>959,504.56     | 14,216.98<br>14,216.98 | 14,216.98<br>14,216.98 | 285,783.02<br>945,287.58     |
| 626-000-090-0005        | Commission Vehicles                                    | 871,854.29                   | 0.00                   | 0.00                   | 871,854.29                   |
| 626-000-090-0007        | Communications Equipment                               | 251,297.82                   | 191.45                 | 191.45                 | 251,106.37                   |
| 626-000-090-0009        | Computers, Servers & Copiers                           | 145,233.02                   | 15,087.15              | 15,087.15              | 130,145.87                   |
| 626-000-090-0010        | Building & Structure Improve't                         | 274,852.73                   | 0.00                   | 0.00                   | 274,852.73                   |
| 626-000-090-0011        | Operating Equipment                                    | 269,920.30                   | 0.00                   | 0.00                   | 269,920.30                   |
| 626-000-090-0012        | Colton St Structural Improve't                         | 675,856.55                   | 155,939.51             | 155,939.51             | 519,917.04                   |
| 626-000-090-0015        | SCADA System   | 71,016.30                    | 5,669.75               | 5,669.75               | 65,346.55                    |
| 626-000-090-0016        | Information Systems                                    | 479,873.16                   | 0.00                   | 0.00                   | 479,873.16                   |
| 626-000-090-0017        | Resource Conservation Prog                             | 16,374.99                    | 0.00                   | 0.00                   | 16,374.99                    |
| 626-000-090-0018        | WPF Scada Syst Construction                            | 2,269,582.06                 | 2,055.00               | 2,055.00               | 2,267,527.06                 |
| 090                     | CIP Admin & Engineering                                | 5,325,861.22                 | 178,942.86             | 178,942.86             | 5,146,918.36                 |
| 626-000-10A-0003<br>10A | Maint. Management System<br>System Wide Projects       | 24,068.23<br>24,068.23       | 0.00<br>0.00           | 0.00<br>0.00           | 24,068.23<br>24,068.23       |
| 626-000-12A-0018        | Collection Sys Asses & Rehab                           | 643,250.13                   | 171.76                 | 171.76                 | 643,078.37                   |
| 626-000-12A-0019        | Coll Sys Asset Mgmt&Maint PhI                          | 5,839,626.43                 | 1,298,081.15           | 1,298,081.15           | 4,541,545.28                 |
| 626-000-12A-0038        | Sewer Rehab - Pine,Ashley etc                          | 197,378.61                   | 0.00                   | 0.00                   | 197,378.61                   |
| 626-000-12A-0039        | New Collection System Pipe                             | 805,384.35                   | 0.00                   | 0.00                   | 805,384.35                   |
| 626-000-12A-0040        | Manhole Rehabilitation                                 | 20,000.00                    | 0.00                   | 0.00                   | 20,000.00                    |
| 626-000-12A-0042        | 21 Street Sewer Rehab                                  | 6,000,000.00                 | 0.00                   | 0.00                   | 6,000,000.00                 |
| 626-000-12A-0049        | Sewer Rplmt Allen,Bradley,Spru                         | 687,000.00                   | 105,613.93             | 105,613.93             | 581,386.07                   |
| 12A                     | Sewer Collection Sys                                   | 14,192,639.52                | 1,403,866.84           | 1,403,866.84           | 12,788,772.68                |
| 626-000-12B-0005        | Distrib System Rehab                                   | 692,937.32                   | 84,795.48              | 84,795.48              | 608,141.84                   |
| 626-000-12B-0036        | Hydrant Project  | 302,085.12                   | 13,631.98              | 13,631.98              | 288,453.14                   |
| 626-000-12B-0038        | Colton St Site Improvements                            | 380,250.12                   | 0.00                   | 0.00                   | 380,250.12                   |
| 626-000-12B-0040        | Distribution Syst Asses&Rehab                          | 744,337.89                   | 7,022.30               | 7,022.30               | 737,315.59                   |
| 626-000-12B-0048        | Clean & Line State St Ludlow                           | 1,221,173.21                 | 35,750.00              | 35,750.00              | 1,185,423.21                 |
| 626-000-12B-0066        | Bridge Piping Replacement                              | 558,415.61                   | 3,947.26               | 3,947.26               | 554,468.35                   |
| 626-000-12B-0067<br>12B | 21 Street Water Main Project<br>Water Distribution Sys | 2,800,000.00<br>6,699,199.27 | 0.00<br>145,147.02     | 0.00<br>145,147.02     | 2,800,000.00<br>6,554,052.25 |
| 626-000-130-0001<br>130 | Power Supply Equip Replacement<br>Power Supply         | 1,499,200.51<br>1,499,200.51 | 0.00<br>0.00           | 0.00<br>0.00           | 1,499,200.51<br>1,499,200.51 |
| Grand Total             |  | 99,420,791.62                | 3,733,674.10           | 3,733,674.10           | 95,687,117.52                |

# FY 2014

## General Ledger Capital Projects 626

July 1 2013

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Period: 01 - 01  
Fiscal Year 2014

| Account Number     | Description                              | Appropriation        | Period Amt  | YTD Expended | Unencumbered         |
|--------------------|--|----------------------|-------------|--------------|----------------------|
| 626-000-001-0007   | WW Treatment Improvements                | 869,614.31           | 0.00        | 0.00         | 869,614.31           |
| <b>001</b>         | <b>Wastewater Treatment</b>              | <b>869,614.31</b>    | <b>0.00</b> | <b>0.00</b>  | <b>869,614.31</b>    |
| 626-000-002-0009   | Pump Station Improvements                | 193,813.82           | 0.00        | 0.00         | 193,813.82           |
| <b>002</b>         | <b>Wastewater Pump Stations</b>          | <b>193,813.82</b>    | <b>0.00</b> | <b>0.00</b>  | <b>193,813.82</b>    |
| 626-000-003-0013   | Ct River CSO Control Phase 1             | 689,865.88           | 0.00        | 0.00         | 689,865.88           |
| 626-000-003-0014   | Flood Control PS Improvements            | 150,034.66           | 0.00        | 0.00         | 150,034.66           |
| 626-000-003-0017   | Ct Riv CSO Control Phase 1 SRF           | 8,053,883.68         | 0.00        | 0.00         | 8,053,883.68         |
| 626-000-003-0018   | CSO LTCP & Washburn St Design            | 1,717,229.66         | 0.00        | 0.00         | 1,717,229.66         |
| 626-000-003-0019   | CSO/Sewer GIS Mapping etc                | 301,804.29           | 0.00        | 0.00         | 301,804.29           |
| 626-000-003-0021   | Washburn St Separation D & C             | 641,038.59           | 0.00        | 0.00         | 641,038.59           |
| 626-000-003-0024   | Main Interceptor Design                  | 1,650,000.00         | 0.00        | 0.00         | 1,650,000.00         |
| 626-000-003-0025   | Washburn St CSO Construction             | 18,005,528.41        | 0.00        | 0.00         | 18,005,528.41        |
| <b>003</b>         | <b>CSO &amp; Main Interceptors</b>       | <b>31,209,385.17</b> | <b>0.00</b> | <b>0.00</b>  | <b>31,209,385.17</b> |
| 626-000-004-0003   | Watershed Protection/Acquisit.           | 370,260.00           | 0.00        | 0.00         | 370,260.00           |
| 626-000-004-0007   | Dam Maint/Various Locations              | 534,718.76           | 0.00        | 0.00         | 534,718.76           |
| 626-000-004-0019   | Watershed Roads                          | 125,000.69           | 0.00        | 0.00         | 125,000.69           |
| <b>004</b>         | <b>Dams, Reservoirs &amp; Watersheds</b> | <b>1,029,979.45</b>  | <b>0.00</b> | <b>0.00</b>  | <b>1,029,979.45</b>  |
| 626-000-005-0005   | Lagoon Cleaning                          | 173,594.19           | 0.00        | 0.00         | 173,594.19           |
| 626-000-005-0024   | Coagulant Feed & Mixing System           | 54,601.93            | 0.00        | 0.00         | 54,601.93            |
| 626-000-005-0026   | Trmt System Infrastruc Rehab             | 442,912.10           | 0.00        | 0.00         | 442,912.10           |
| 626-000-005-0027   | Water Trmt Syst Improvements             | 275,000.00           | 0.00        | 0.00         | 275,000.00           |
| 626-000-005-0034   | WPF Emergency Generator                  | 28,989.68            | 0.00        | 0.00         | 28,989.68            |
| 626-000-005-0036   | WPF Generator Repl & Construct           | 180,340.10           | 0.00        | 0.00         | 180,340.10           |
| 626-000-005-0041   | Rehab of Ludlow SSF Dist Struc           | 200,000.00           | 0.00        | 0.00         | 200,000.00           |
| <b>005</b>         | <b>Water Treatment Plant</b>             | <b>1,355,438.00</b>  | <b>0.00</b> | <b>0.00</b>  | <b>1,355,438.00</b>  |
| 626-000-06A-0008   | Transmission Sys Assess&Rehab            | 399,080.36           | 0.00        | 0.00         | 399,080.36           |
| 626-000-06A-0014   | Transmission System Rehab                | 224,159.77           | 0.00        | 0.00         | 224,159.77           |
| 626-000-06A-0016   | NOVA/Chicopee Crossing SRF               | 1,142,014.84         | 0.00        | 0.00         | 1,142,014.84         |
| 626-000-06A-0019   | Huntington PS Elec. Upgrade              | 36,295.65            | 0.00        | 0.00         | 36,295.65            |
| 626-000-06A-0025   | So Transm Main Ct River SRF              | 199,528.78           | 0.00        | 0.00         | 199,528.78           |
| 626-000-06A-0028   | Huntington Pipe Repair                   | 103,842.28           | 0.00        | 0.00         | 103,842.28           |
| 626-000-06A-0030   | 54"48" South Trans Main Const            | 32,000,000.00        | 0.00        | 0.00         | 32,000,000.00        |
| 626-000-06A-0031   | South Tran Main Design, Sp Serv          | 1,200,000.00         | 0.00        | 0.00         | 1,200,000.00         |
| <b>06A</b>         | <b>Water Transmission</b>                | <b>35,304,921.68</b> | <b>0.00</b> | <b>0.00</b>  | <b>35,304,921.68</b> |
| 626-000-070-0006   | Meter Replacement                        | 757,165.88           | 0.00        | 0.00         | 757,165.88           |
| <b>070</b>         | <b>Water Meters</b>                      | <b>757,165.88</b>    | <b>0.00</b> | <b>0.00</b>  | <b>757,165.88</b>    |
| 626-000-080-0012   | Provin Mtn Tank II SRF                   | 659,504.56           | 0.00        | 0.00         | 659,504.56           |
| 626-000-080-0013   | Provin Wtr Storage Sys Rehab             | 300,000.00           | 0.00        | 0.00         | 300,000.00           |
| <b>080</b>         | <b>CIP Provin Mtn.</b>                   | <b>959,504.56</b>    | <b>0.00</b> | <b>0.00</b>  | <b>959,504.56</b>    |
| 626-000-090-0005   | Commission Vehicles                      | 871,854.29           | 0.00        | 0.00         | 871,854.29           |
| 626-000-090-0007   | Communications Equipment                 | 251,297.82           | 0.00        | 0.00         | 251,297.82           |
| 626-000-090-0009   | Computers, Servers & Copiers             | 145,233.02           | 0.00        | 0.00         | 145,233.02           |
| 626-000-090-0010   | Building & Structure Improve't           | 274,852.73           | 0.00        | 0.00         | 274,852.73           |
| 626-000-090-0011   | Operating Equipment                      | 269,920.30           | 0.00        | 0.00         | 269,920.30           |
| 626-000-090-0012   | Colton St Structural Improve't           | 675,856.55           | 0.00        | 0.00         | 675,856.55           |
| 626-000-090-0015   | SCADA System                             | 71,016.30            | 0.00        | 0.00         | 71,016.30            |
| 626-000-090-0016   | Information Systems                      | 479,873.16           | 0.00        | 0.00         | 479,873.16           |
| 626-000-090-0017   | Resource Conservation Prog               | 16,374.99            | 0.00        | 0.00         | 16,374.99            |
| 626-000-090-0018   | WPF Scada Syst Construction              | 2,269,582.06         | 0.00        | 0.00         | 2,269,582.06         |
| <b>090</b>         | <b>CIP Admin &amp; Engineering</b>       | <b>5,325,861.22</b>  | <b>0.00</b> | <b>0.00</b>  | <b>5,325,861.22</b>  |
| 626-000-10A-0003   | Maint. Management System                 | 24,068.23            | 0.00        | 0.00         | 24,068.23            |
| <b>10A</b>         | <b>System Wide Projects</b>              | <b>24,068.23</b>     | <b>0.00</b> | <b>0.00</b>  | <b>24,068.23</b>     |
| 626-000-12A-0018   | Collection Sys Asses & Rehab             | 643,250.13           | 0.00        | 0.00         | 643,250.13           |
| 626-000-12A-0019   | Coil Sys Asset Mgmt&Maint Ph1            | 5,839,626.43         | 0.00        | 0.00         | 5,839,626.43         |
| 626-000-12A-0038   | Sewer Rehab - Pine,Ashley etc            | 197,378.61           | 0.00        | 0.00         | 197,378.61           |
| 626-000-12A-0039   | New Collection System Pipe               | 805,384.35           | 0.00        | 0.00         | 805,384.35           |
| 626-000-12A-0040   | Manhole Rehabilitation                   | 20,000.00            | 0.00        | 0.00         | 20,000.00            |
| 626-000-12A-0042   | 21 Street Sewer Rehab                    | 6,000,000.00         | 0.00        | 0.00         | 6,000,000.00         |
| 626-000-12A-0049   | Sewer Rplmt Allen,Bradley,Spru           | 687,000.00           | 0.00        | 0.00         | 687,000.00           |
| <b>12A</b>         | <b>Sewer Collection Sys</b>              | <b>14,192,639.52</b> | <b>0.00</b> | <b>0.00</b>  | <b>14,192,639.52</b> |
| 626-000-12B-0005   | Distrib System Rehab                     | 692,937.32           | 0.00        | 0.00         | 692,937.32           |
| 626-000-12B-0036   | Hydrant Project                          | 302,085.12           | 0.00        | 0.00         | 302,085.12           |
| 626-000-12B-0038   | Colton St Site Improvements              | 380,250.12           | 0.00        | 0.00         | 380,250.12           |
| 626-000-12B-0040   | Distribution Syst Asses&Rehab            | 744,337.89           | 0.00        | 0.00         | 744,337.89           |
| 626-000-12B-0048   | Clean & Line State St Ludlow             | 1,221,173.21         | 0.00        | 0.00         | 1,221,173.21         |
| 626-000-12B-0066   | Bridge Piping Replacement                | 558,415.61           | 0.00        | 0.00         | 558,415.61           |
| 626-000-12B-0067   | 21 Street Water Main Project             | 2,800,000.00         | 0.00        | 0.00         | 2,800,000.00         |
| <b>12B</b>         | <b>Water Distribution Sys</b>            | <b>6,699,199.27</b>  | <b>0.00</b> | <b>0.00</b>  | <b>6,699,199.27</b>  |
| 626-000-130-0001   | Power Supply Equip Replacement           | 1,499,200.51         | 0.00        | 0.00         | 1,499,200.51         |
| <b>130</b>         | <b>Power Supply</b>                      | <b>1,499,200.51</b>  | <b>0.00</b> | <b>0.00</b>  | <b>1,499,200.51</b>  |
| <b>Grand Total</b> |  | <b>99,420,791.62</b> | <b>0.00</b> | <b>0.00</b>  | <b>99,420,791.62</b> |